IN THE CLAIMS:

1. (Currently Amended) A computer-implemented method of encrypting data, the data being comprised of a plurality of data chunks, comprising:

encrypting ~~each of the plurality of~~ a first data chunk ~~chunks~~;

calculating ~~a plurality of~~ an intermediate digital digests for the first encrypted data chunk; [[and]]

repeating the encrypting and calculating steps for each data chunk of the plurality of data chunks, thereby creating a plurality of encrypted data chunks and associated intermediate digital digests; and

formulating a data package comprising the encrypted data chunks and the plurality of intermediate digital digests.

2. (Cancelled)

3. (Original) The method of claim 1, wherein each intermediate digital digest builds from a previously calculated intermediate digital digest.

4. (Currently Amended) A computer-implemented method of decrypting an encrypted data package, the encrypted data package being comprised of a plurality of encrypted data portions and a plurality of encrypted intermediate digital digests, wherein each encrypted data portion corresponds to an encrypted intermediate digital digest, comprising:

reading an encrypted data portion from the plurality of encrypted data portions;

calculating a ~~calculated~~ digital digest for the encrypted data portion;

decrypting an intermediate digital digest corresponding to the encrypted data portion from the plurality of intermediate digital digests ~~from the encrypted data package~~; [[and]]

authenticating the encrypted data portion based on a comparison of the decrypted intermediate digital digest to the calculated digital digest; and

in response to a match, decrypting the encrypted data portion and repeating the reading, calculating, decrypting and authenticating steps for a next encrypted data portion of the data package.

5. (Cancelled)

6. (Cancelled)

7. (Currently Amended) The method of claim 4, ~~wherein the intermediate digital digest corresponds to an amount of data different from an amount of data in the encrypted data portion~~further comprising:

in response to a mis-match of the decrypted intermediate digital digest and the calculated digital digest, discarding the encrypted data package.

8. (Currently Amended) The method of claim 4, wherein decrypting an intermediate digital digest ~~from the encrypted data package~~ includes reading [[an]]the intermediate digital digest from a digital digest portion of the encrypted data package, wherein the digital digest portion ~~having a~~ has the plurality of intermediate digital digests arranged in an order.

9. (Original) The method of claim 8, wherein the intermediate digital digest is built up from a previous intermediate digital digest in the order.

10. (Original) The method of claim 8, wherein the intermediate digital digest corresponds to a different amount of encrypted data than other intermediate digital digests in the digital digest portion.

11. (Currently Amended) ~~An apparatus~~ A data processing system for encrypting data, the data being comprised of a plurality of data chunks, comprising:

processor means for encrypting a first data chunk~~each of the plurality of data chunks~~;

processor means for calculating ~~a plurality of~~ an intermediate digital digest for the first encrypted data chunk ~~digests based on the encrypted data chunks, each intermediate digital digest being associated with one or more of the data chunks~~;

processor means for repeating the encrypting and calculating steps for each data chunk of the plurality of data chunks, thereby creating a plurality of encrypted data chunks and associated intermediate digital digests; and

processor means for formulating a data package comprising the encrypted data chunks and the plurality of intermediate digital digests.

12. (Cancelled)

13. (Currently Amended) The ~~apparatus~~ data processing system of claim 11, wherein each intermediate digital digest builds from a previously calculated intermediate digital digest.

14. (Currently Amended) ~~An apparatus of~~A data processing system for decrypting an encrypted data package, the encrypted data package being comprised of a plurality of encrypted data portions and a plurality of encrypted intermediate digital digests, wherein each encrypted data portion corresponds to an encrypted intermediate digital digest, comprising:

processor means for reading an encrypted data portion from the plurality of encrypted data portions;

processor means for calculating a ~~calculated~~ digital digest for the encrypted data portion;

processor means for decrypting an intermediate digital digest corresponding to the encrypted data portion from the plurality of intermediate digital digests ~~from the encrypted data package~~; [[and]]

processor means for authenticating the encrypted data portion based on a comparison of the decrypted intermediate digital digest to the calculated digital digest; and

in response to a match, processor means for decrypting the encrypted data portion and repeating the reading, calculating, decrypting and authenticating steps for a next encrypted data portion of the data package.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) The ~~apparatus~~ data processing system of claim 14, ~~wherein the intermediate digital digest corresponds to an amount of data different from an amount of data in the encrypted data portion~~further comprising:

in response to a mis-match of the decrypted intermediate digital digest and the calculated digital digest, means for discarding the encrypted data package.

18. (Currently Amended) The ~~apparatus~~ data processing system of claim 14, wherein the means for decrypting an intermediate digital digest ~~from the encrypted data package~~ includes means for reading [[an]]the intermediate digital digest from a digital digest portion of the encrypted data package, wherein the digital digest portion ~~having a~~ has the plurality of intermediate digital digests arranged in an order.

19. (Currently Amended) The ~~apparatus~~ data processing system of claim 18, wherein the intermediate digital digest is built up from a previous intermediate digital digest in the order.

20. (Currently Amended) The ~~apparatus~~ data processing system of claim 18, wherein the intermediate digital digest corresponds to a different amount of encrypted data than other intermediate digital digests in the digital digest portion.

21. (Currently Amended) A computer program product of encrypting data, the data being comprised of a plurality of data chunks, comprising:

first instructions for encrypting ~~each of the plurality of data chunks~~a first data chunk;

second instructions for calculating ~~a plurality of~~ an intermediate digital ~~digests~~ digest for the first data chunk~~based on the encrypted data chunks, each intermediate digital digest being associated with one or more of the data chunks~~;

third instructions for repeating the encrypting and calculating steps for each data chunk of the plurality of data chunks, thereby creating a plurality of encrypted data chunks and associated intermediate digital digests; and

~~third~~ fourth instructions for formulating a data package comprising the encrypted data chunks and the plurality of intermediate digital digests.

22. (Cancelled)

23. (Original) The computer program product of claim 21, wherein each intermediate digital digest builds from a previously calculated intermediate digital digest.

24. (Currently Amended) A computer program product of decrypting an encrypted data package, the encrypted data package being comprised of a plurality of encrypted data portions and a plurality of encrypted intermediate digital digests, wherein each encrypted data portion corresponds to an encrypted intermediate digital digest, comprising:

first instructions for reading an encrypted data portion from the plurality of encrypted data portions;

second instructions for calculating a ~~calculated~~ digital digest for the encrypted data portion;

third instructions for decrypting an intermediate digital digest corresponding to the encrypted data portion from the plurality of digital digests ~~from the encrypted data package~~; [[and]]

fourth instructions for authenticating the encrypted data portion based on a comparison of the intermediate digital digest to the calculated digital digest; and

in response to a match, fifth instructions for decrypting the encrypted data portion and repeating the reading, calculating, decrypting and authenticating steps for a next encrypted data portion of the data package.

25. (Cancelled)

26. (Cancelled)

27. (Currently Amended) The computer program product of claim 24, ~~wherein the intermediate digital digest corresponds to an amount of data different from an amount of data in the encrypted data portion~~further comprising:

in response to a mis-match of the decrypted intermediate digital digest and the calculated digital digest, sixth instructions for discarding the encrypted data package.

28. (Currently Amended) The computer program product of claim 24, wherein the third instructions for decrypting an intermediate digital digest ~~from the encrypted data package~~ include instructions for reading [[an]]the intermediate digital digest from a digital digest portion of the encrypted data package, wherein the digital digest portion ~~having a~~ has a plurality of intermediate digital digests arranged in an order.

29. (Original) The computer program product of claim 28, wherein the intermediate digital digest is built up from a previous intermediate digital digest in the order.

30. (Original) The computer program product of claim 28, wherein the intermediate digital digest corresponds to a different amount of encrypted data than other intermediate digital digests in the digital digest portion.